

Overview of Children's Oral Health in Wisconsin

*Youth Oral Health
Data Collection Report*



*Wisconsin Department of Health and Family Services
2001-2002*

Overview of Children's Oral Health in Wisconsin

Youth Oral Health Data Collection Report

November 2002

Wisconsin Department of Health and Family Services

Contents

Introduction From the Wisconsin Department of Health and Family Services	1
Oral Health Status of Wisconsin's Third Grade Children	2
Make Your Smile Count Survey	3
Key Findings - Statewide	3
Key Findings - By Race and Ethnicity	7
Key Findings - By Region	12
Key Findings - By Socioeconomic Status	14
Estimate of Disease Prevalence	16
Comparison to Healthy People 2010 Objectives	17
Healthy Smiles for Wisconsin Survey of Public School Systems	18
Community-Based Prevention Programs for Children	20
Fluoride Programs	20
Community Water Fluoridation Programs	20
School-Based Fluoride Mouthrinse Programs	22
Dietary Fluoride Supplement Programs	22
Dental Sealant Programs	22
Healthy Smiles for Wisconsin, Seal-a-Smile	23
GuardCare Sealant Program	24
Early Childhood Caries Prevention Program	25
Spit Tobacco Program	25
Oral Health Professional Workforce	27
Dentist	27
Dental Hygienist	30
Dental Health Professional Shortage Areas	30
National Health Service Corps	31
Health Professional Loan Assistance Program	31
Oral Health Delivery Systems	32
Private Practice	32
Rural Dental Clinics	33
Federally Qualified Community Clinics	33
Inter-Tribal Clinics	34
Other Safety Net Clinics	34
Marquette University School of Dentistry	35
Wisconsin Technical College System Dental Hygiene Programs	36
Head Start Programs	37
Financing Oral Health for Children	37
Self-Pay	37
Dental Insurance	37
Medicaid/BadgerCare Fee-for-Service	37
Medicaid/BadgerCare Health Maintenance Organization	38
Health Check – Early Periodic Screening Diagnosis Treatment (EPSDT)	38
Donated Dental Services	38

Appendices	39
A. Demographics of Wisconsin	39
Population	
Children	
Race/Ethnicity	
B. Dental Health Professional Shortage Areas Map	40
C. Department of Health and Family Services Regional Map	41
D. Regional <i>Make Your Smile Count Survey</i> Results	42
Southern	42
Southeastern	43
Northeastern	44
Western	45
Northern	46
E. Regional Fact Sheets	47
Southern	47
Southeastern	48
Northeastern	49
Western	50
Northern	51
F. Wisconsin Community Water Fluoridation Census, 2001	52
G. Resources	58
References	60

Introduction

The Wisconsin Youth Oral Health Data Collection Report is a requirement of the United States Centers for Disease Control and Prevention Oral Disease Prevention in School Aged Children grant. It identifies key data elements and existing data and studies. The report shares information about the oral health of Wisconsin children and factors affecting their oral health, including available resources.

In 1999, through a United States Centers for Disease Control and Prevention Oral Disease Prevention in School Aged Children grant with the Wisconsin Department of Public Instruction (DPI), the Department of Health and Family Services (DHFS) received funding to address three initiatives affecting oral health in school-aged children. Collectively, the grant-funded initiatives are entitled Healthy Smiles for Wisconsin. The Wisconsin Youth Oral Health Data Collection Plan is one of the three initiatives. The following are brief descriptions of Healthy Smiles for Wisconsin initiatives administered by the DHFS Division of Public Health Oral Health Program.

- **Back to School for Healthy Smiles:** There are three objectives for the Back to School for Healthy Smiles Initiative:
 - Promote effective school-based and school-linked strategies used by Marquette University and the Wisconsin Technical College System dental and dental hygiene programs.
 - Provide community health education
 - Promote service-learning opportunities for dental and dental hygiene students.
- **Healthy Smiles for Wisconsin Seal-a-Smile:** This initiative is a statewide effort to provide dental sealants to Wisconsin's under-served populations and promote dental sealants throughout Wisconsin.
- **Wisconsin Youth Oral Health Data Collection Plan:** The plan includes the Make Your Smile Count Survey of third grade children and data collection from other sources.

The Wisconsin Youth Oral Health Data Collection Report includes key findings from the Make Your Smile Count Survey of Wisconsin's third grade children, data collected from other sources and a description of State funded oral health programs and initiatives.

This report is available on the Department of Health and Family Services Web site (see address below). Comments, suggestions and requests for further information may be addressed to:

Oral Health Program
Office of Public Health Improvement
Division of Public Health
Wisconsin Department of Health and Family Services
P.O. Box 2659
Madison, WI 53701-2659
(608) 266-3201 or (608) 266-5152
http://www.dhfs.state.wi.us/health/Oral_Health/

Oral Health Status of Wisconsin's Third Grade Children

In 2001 and 2002, the Department of Health and Family Services initiated an oral health screening survey of third grade children in Wisconsin. The *Make Your Smile Count* survey was funded through a United States Centers for Disease Control and Prevention grant awarded to the Department of Public Instruction and the Department of Health and Family Services. This section describes key findings of the first, comprehensive oral health survey of children in Wisconsin.

The purpose of the *Make Your Smile Count* survey was to learn about the oral health of children in Wisconsin and in the Department's five multi-county regions. Information from the *Make Your Smile Count* survey will assist us in planning future oral health programs.

The survey collected information on caries (cavities) experience, the prevalence of dental sealants, and the need for urgent treatment. The results of the survey will be used to (1) establish a baseline for monitoring children's oral health status; (2) assess the extent of children's oral health needs; and (3) establish and focus prevention programs, policies, and funding.

The entire report is available on the Department of Health and Family Services Web site.



Make Your Smile Count 2001-2002 Survey

Key Findings - Statewide



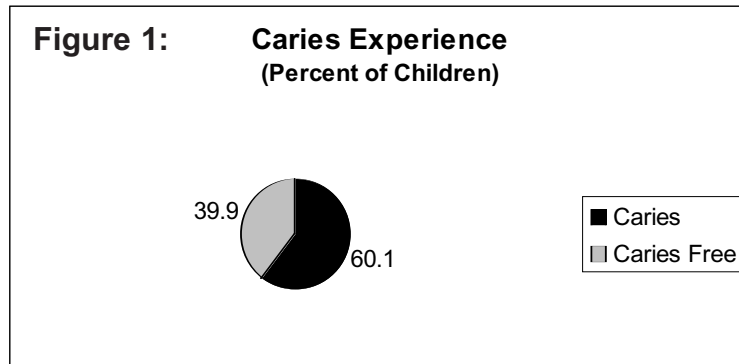
A total of 3,307 third grade children participated in the survey and were screened (67% response rate). The children ranged in age from 7-10 years with the majority (97%) being either 8 or 9 years of age (mean=8.38, standard deviation=0.54). Half of the children (50.0%) were female and 75 percent were white non-Hispanic. Refer to Table 1 for demographic information.

Compared to state enrollment data, "Make Your Smile Count" may have over sampled lower-income schools (Data Table 1, page 27). While 34 percent of all elementary school children in Wisconsin are eligible for the free and/or reduced-price meal program, 39 percent of the children attending participating schools were eligible. The percent of children in need of dental care is assumed to be an underestimation because radiographs (x-rays) were not taken.

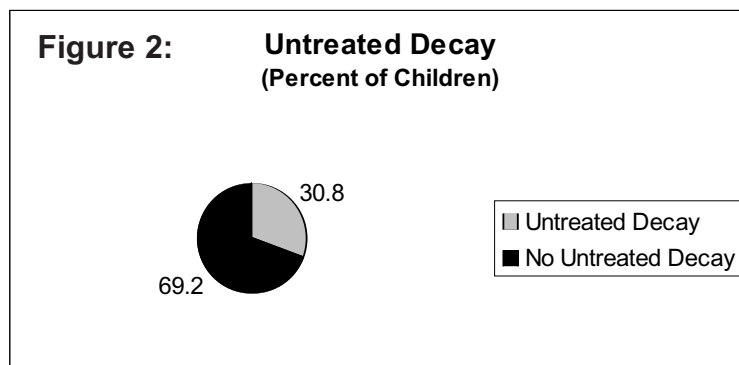


Key Finding #1: 39.9 percent of the children were caries (cavity) free.

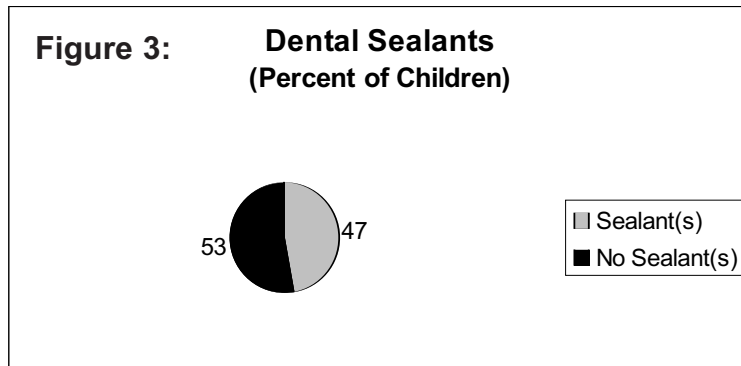
Key Finding #2: 60.1 percent of the children had a history of dental caries – at least one primary or permanent tooth with a filling and/or an untreated cavity.



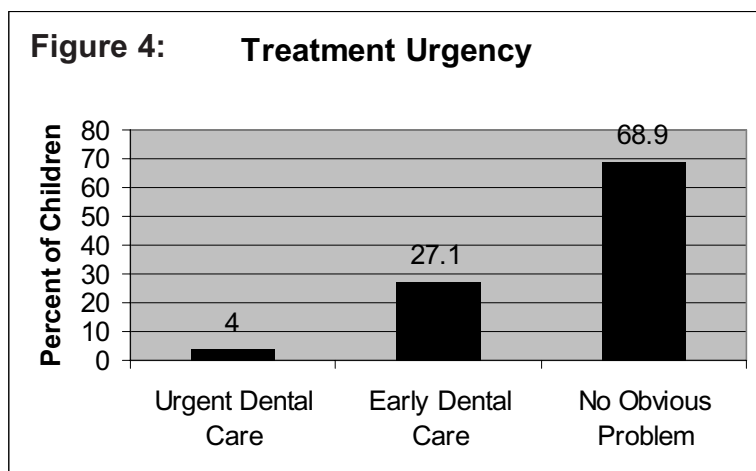
Key finding #3: 30.8 percent of the children had untreated decay — at least one primary or permanent tooth with an untreated cavity.



Key Finding #4: 47.0 percent of the children had at least one permanent first molar with a dental sealant – a resin coating that covers the chewing surface of the back teeth making them more resistant to decay.



Key Finding #5: 31.1 percent of the children screened needed dental care – 27.1 percent were in need of early dental care while 4.0 percent needed urgent dental care.



- Criteria for urgent care: signs or symptoms that include pain, infection, swelling, or soft tissue ulceration of more than two weeks duration.
- Criteria for early dental care: caries without accompanying signs or symptoms, individuals with spontaneous bleeding of the gums, or suspicious white or red soft tissue areas.
- Criteria for no obvious problems: any patient without the above problems.

Make Your Smile Count 2001-2002 Survey Key Findings - By Race and Ethnicity

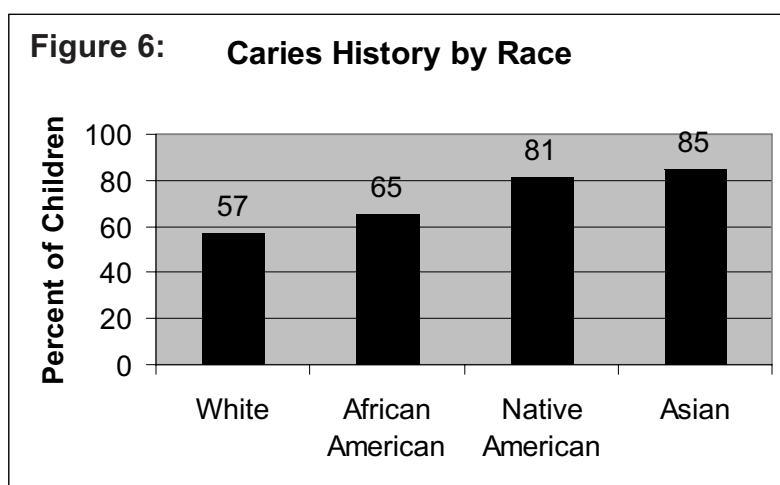
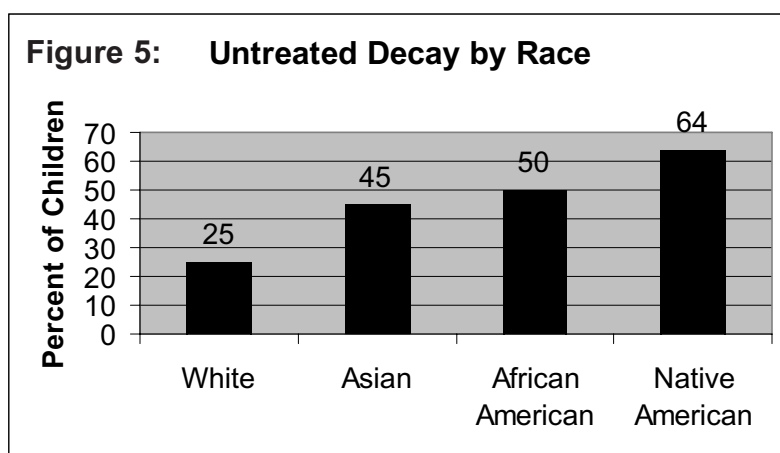


Of the 90 schools participating in the survey, 87 agreed to provide information on race and/or ethnicity. Some schools use a combined race/ethnicity classification rather than two separate classifications; therefore, race or ethnicity data is missing for some children.

Information on race was available for 2,958 children while information on ethnicity was available for 2,520 children.

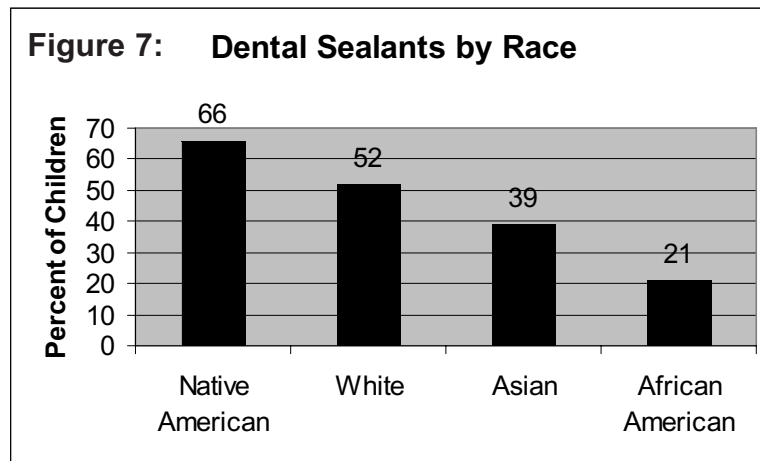
Key Finding #6: Compared to white children, a significantly higher proportion ($p < 0.05$) of minority children had caries experience and untreated decay. Twenty-five percent of the white children screened had untreated decay compared to 50 percent of the African-American, 45 percent of the Asian, and 64 percent of the American Indian children.

*(Note: $p < 0.05$ is a value of statistical significance; p represents probability—the probability of getting something more extreme than the survey result; equals a confidence interval of 95%)

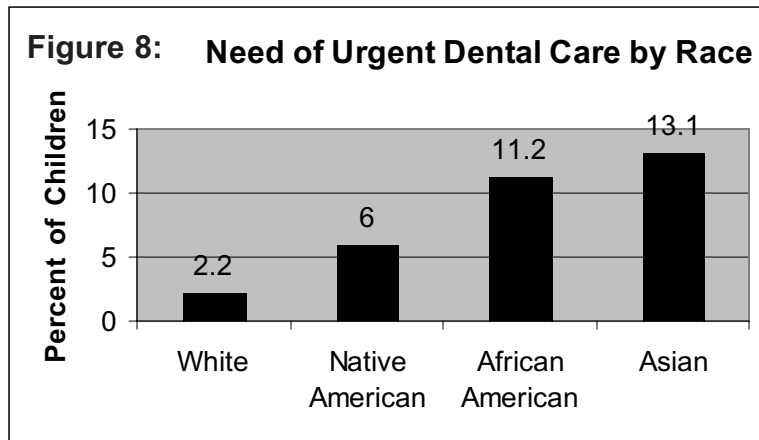


Key Finding #7: White and American Indian children were more likely to have dental sealants compared to both African American and Asian children. Of the American Indian children screened, 66 percent had sealants while 52 percent of the white children had sealants ($p>0.05$). Twenty-one percent of the African American children and 39 percent of the Asian children had sealants.

*(Note: $p<0.05$ is a value of statistical significance; p represents probability—the probability of getting something more extreme than the survey result, equals a confidence interval of 95%)



Key Finding #8: More than 11 percent of the African American and 13 percent of the Asian children were in need of urgent dental care.



Key Finding #9: Compared to white non-Hispanic children, a significantly higher proportion of Hispanic children had caries experience and untreated decay while a significantly lower proportion had dental sealants.

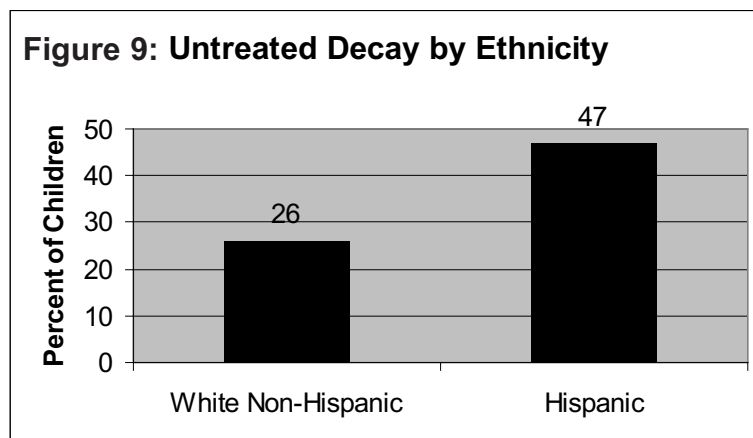


Figure 10: Caries History by Ethnicity

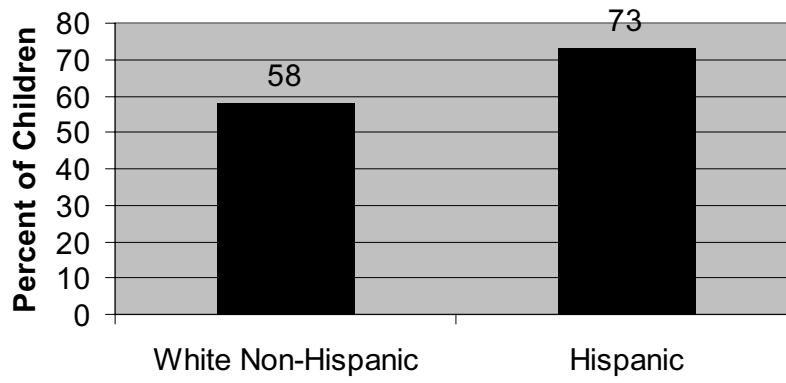
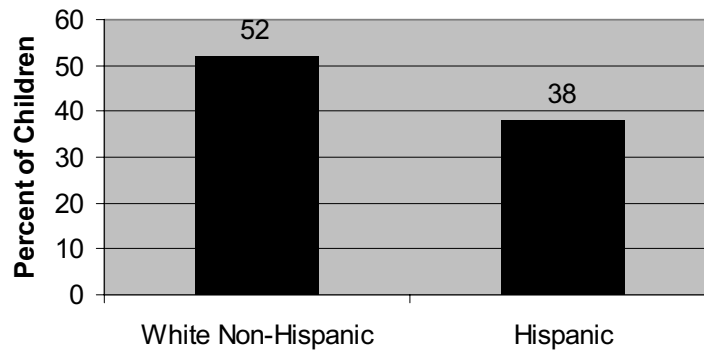


Figure 11: Dental Sealants by Ethnicity



Make Your Smile Count 2001-2002 Survey

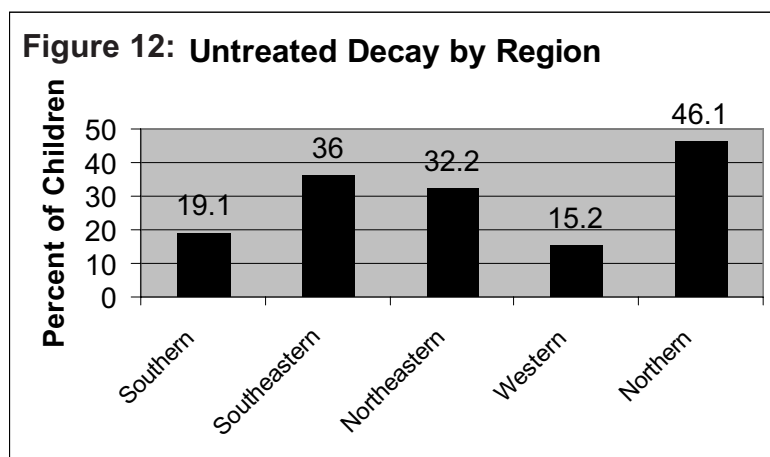
Key Findings - By Region

A self-weighting stratified sampling scheme was used to select elementary schools from the five regions within Wisconsin – southern, southeastern, northeastern, western, and northern (See map, Appendix A).

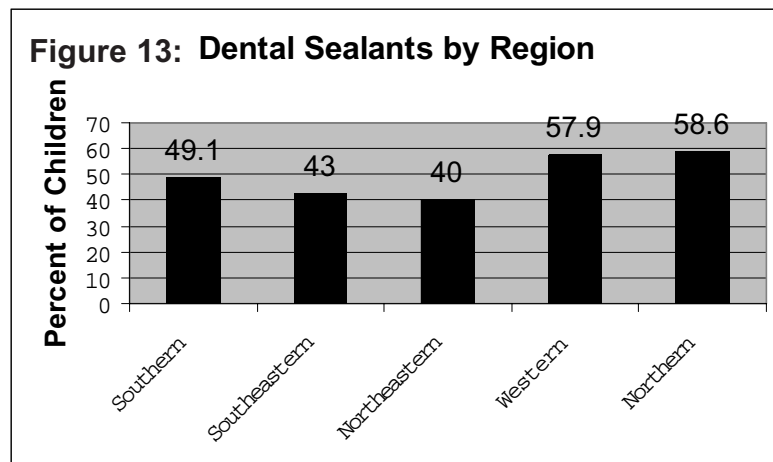
Key Finding #10: 46.1 percent of the children screened in the northern region had untreated decay – significantly higher than any of the other regions ($p < 0.05$).

*(Note $p < 0.05$ is a value of statistical significance; p represents probability—the probability of getting something more extreme than the survey result; equals a confidence interval of 95%)

Key Finding #11: 36 percent of children in the southeastern region and 32.2 percent of the children in the northeastern region had untreated decay — a significantly higher proportion compared to children from the southern region (19.1%) or the western region (15.2%).



Key Finding #12: The prevalence of dental sealants was lowest in the northeastern (40%) and southeastern regions (43%) and highest in the western (57.9%) and northern (58.6%) regions.



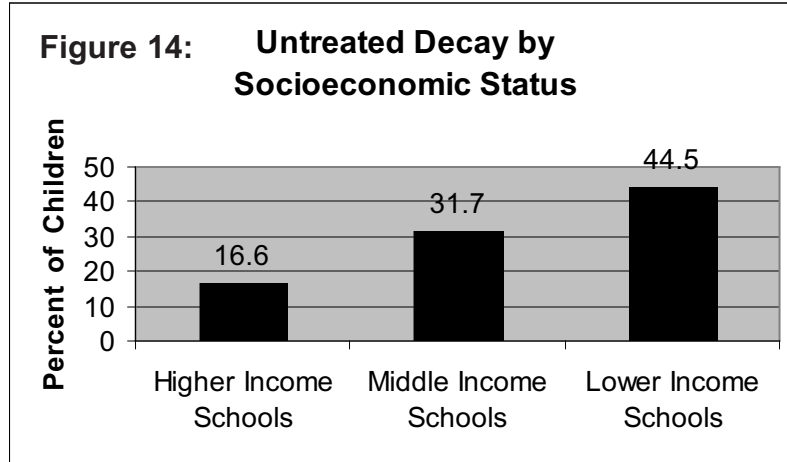
Make Your Smile Count 2001-2002 Survey Key Findings - By Socioeconomic Status



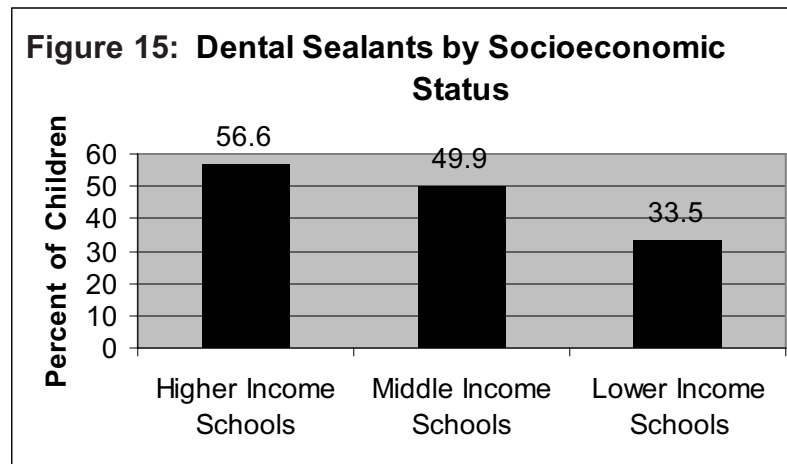
Our health status is highly associated with socioeconomic status. Information on the proportion of students in each school surveyed who were eligible for the free and/or reduced-price meal program was obtained from the Department of Public Instruction. The data were stratified into the following three income levels based on the proportion of children eligible for the free and/or reduced-price meal program:

- **Higher income schools – less than 20 percent of the children are eligible**
- **Middle income schools – 20-39 percent of the children are eligible**
- **Lower income schools – 40 percent or more of the children are eligible**

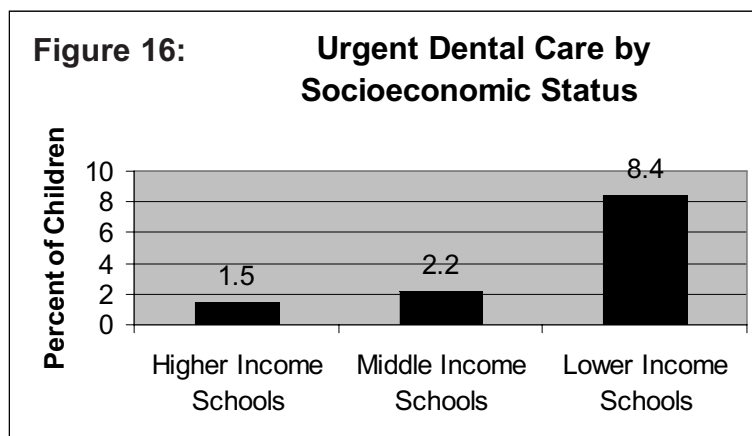
Key Finding #13: Children surveyed who attended lower income schools had significantly more untreated decay (44.5%) compared to children in both middle (31.7%) and higher income schools (16.6%).



Key Finding #14: Children attending lower income schools were less likely to have dental sealants (33.5%) compared to children in both middle (49.9%) and higher income schools (56.6%).



Key Finding #15: Eight percent of the children attending lower income schools were in need of urgent dental care.



Estimate of Disease Prevalence

The number of children in Wisconsin with untreated decay and restorative treatment needs was estimated using the oral health status estimates obtained from this survey along with data from the Department of Public Instruction. The Department of Public Instruction provided information on the number of elementary school children and participation in the free and/or reduced meal program.

Key Finding #16: Approximately 18,310 third grade children in Wisconsin have untreated decay.

Key Finding #17: Approximately 2,329 third grade children in Wisconsin are in need of urgent dental care because of pain or infection.

Key Finding #18: If the estimated percentages obtained from the survey are applied to all elementary school children in Wisconsin, then approximately 14,376 elementary school children in Wisconsin are in need of urgent dental care because of pain or infection.



Comparison to Healthy People 2010 Objectives

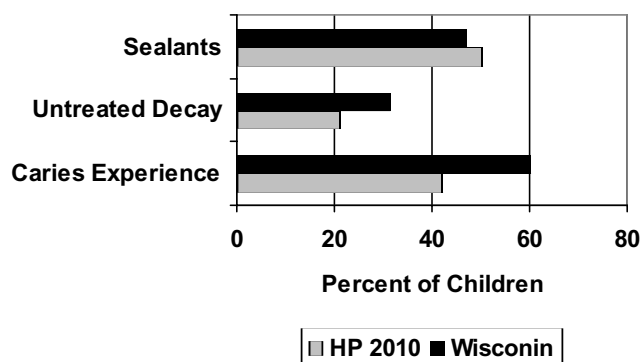


The federal Healthy People 2010 objectives outline several oral health status objectives for children between the ages of six to eight years. These include:

- **Decrease the proportion of children who have experienced dental caries in permanent or primary teeth to 42 percent**
- **Decrease the proportion of children with untreated dental caries in permanent or primary teeth to 21 percent**
- **Increase the proportion of eight-year-olds receiving protective sealing of the occlusal surfaces of permanent molar teeth to 50 percent**

As illustrated in Figure 17, Wisconsin does not yet meet the Healthy People 2010 objectives for caries experience and untreated decay. In terms of dental sealants, Wisconsin is very close to meeting the Healthy People objective.

Figure 17 - Wisconsin Compared to HP 2010



Healthy Smiles for Wisconsin Survey of Public School Systems

In 1999 the Wisconsin Survey Research Laboratory in cooperation with the Wisconsin Department of Public Instruction and Wisconsin Department of Health and Family Services conducted an oral health policy survey of the 426 public school systems in Wisconsin. The Department of Health and Family Services funded the survey as part of an Oral Disease Prevention Grant from the United States Centers for Disease Control and Prevention. The survey addressed two areas of concern (1) Policy and Funding and (2) Education and Services.

The survey gathered information about district policies on pre-kindergarten entrance requirements, notification of parents and school personnel, referrals to oral health professionals, and training for school staff on oral health issues.

Key findings with regard to Policy and Funding include:

- . 24 percent of districts require oral health screening prior to entering pre-kindergarten
- . 15 percent of districts refer students to local oral health care providers when a potential oral health problem or need is indicated
- . 22 percent of districts have oral health education and promotion programs in one or more elementary schools with a budget drawn from general funds.

Key findings with regard to Education and Services:

- . 7 percent of districts provide staff training in basic oral health facts and information
- . 16 percent of districts provide training for teachers who teach health
- . Approximately 25 percent of the school districts offer oral health service and treatment programs in grades K through 5

A second survey collected information on oral health programs at the school level. Questionnaires were sent to a random sample of 300 public schools and 300 private Wisconsin schools in the spring of 1999. The findings are presented in two areas: (1) Oral Health Promotion Programs, and (2) Oral Health Service Delivery.

Oral health promotion programs were defined as activities, programs, and/or lessons about oral health promotion.

Key findings with regard to School Oral Health Programs:

- . 49 percent of schools overall had oral health promotion programs
- . 43 percent of urban schools and 54 percent of rural schools had oral health promotion programs
- . 53 percent of public schools and 48 percent of private schools had oral health promotion programs

Oral Health Service Delivery was defined as school-based or community-based oral health service programs such as screening and referral, fluoride mouth rinse, and sealants.

Key findings with regard to School Oral Health Service Delivery:

- . 14 percent of schools overall had oral health service delivery programs
- . 12 percent of urban schools and 16 percent of rural schools had oral health service delivery programs
- . 18 percent of public schools and 8 percent of private schools had delivery programs for oral health service.

Follow up surveys will be conducted in 2002-2003.

Community-Based Prevention Programs For Children

Wisconsin has several community-based programs designed to help residents prevent oral disease and produce a healthier population. The programs are funded through the Wisconsin Department of Health and Family Services, local health departments and local school districts. Some are aimed at the population as a whole and some are aimed specifically at children.

Appendix E contains tables with regional information about various community-based prevention programs.

Fluoride Programs

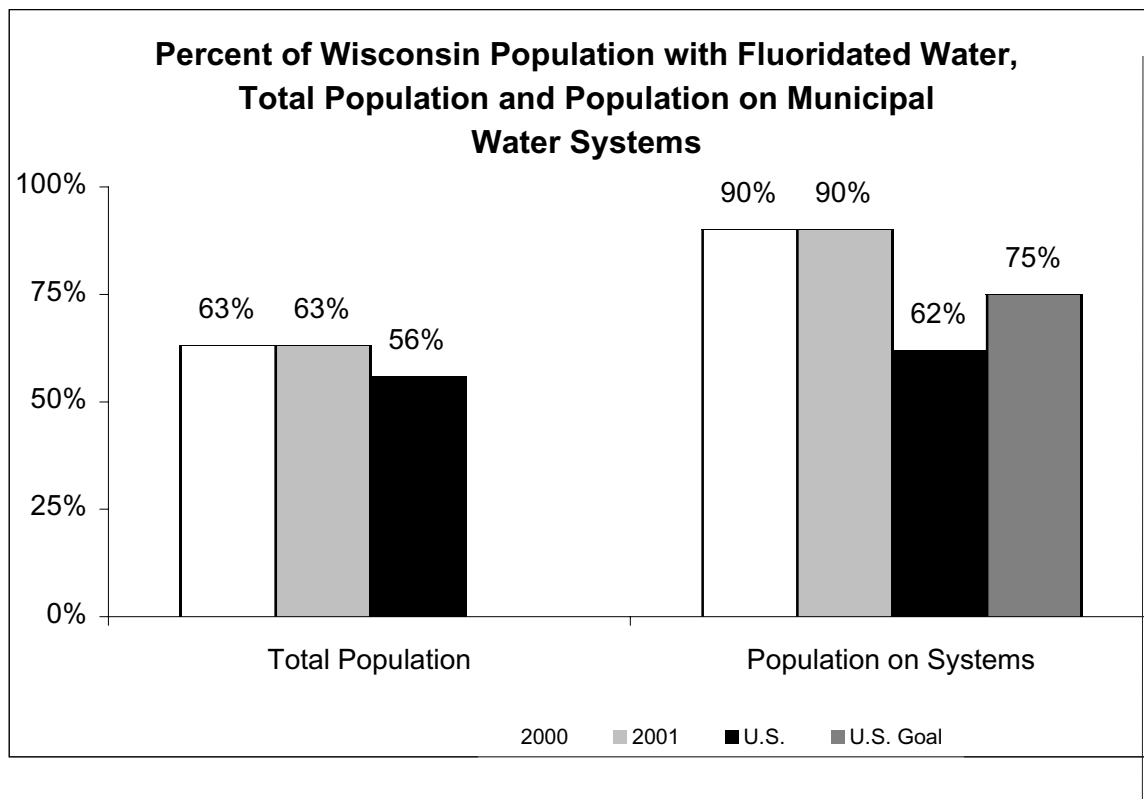
The accumulated use of fluoride is considered to be a major factor in the decline of dental decay in the last three to four decades according to the United States Centers for Disease Control and Prevention. The Wisconsin Department of Health and Family Services (DHFS) promotes and advocates for community water fluoridation and other forms of fluoride, both topical and systemic. Fluoride works by stopping or reversing the tooth decay process by embedding in the plaque matrix and preventing the loss of minerals that keep the tooth resistant to the decay producing acids.

Community Water Fluoridation Programs

Community water fluoridation is an effective, safe, and inexpensive way to prevent tooth decay. Fluoridation benefits Americans of all ages and socioeconomic status reaching 62 percent of the US population with a federal Healthy People 2010 goal of reaching 75 percent.

With approximately 275 community water systems fluoridated, Wisconsin is ranked twelfth highest in the United States for communities that are fluoridated (United States Centers for Disease Control and Prevention, Library Resource Fact Sheet). The DHFS Division of Public Health has received awards from the United States Centers for Disease Control and Prevention for the quality of fluoridated water programs that reach 63 percent of Wisconsin's total population and 90 percent of the population that has access to community water systems.

The Wisconsin Department of Health and Family Services provides technical assistance to local communities, provides presentations to local units of government, and collaborates with the Wisconsin Department of Natural Resources and the US Centers for Disease Control and Prevention for quality assurance purposes. Some funding for fluoridation equipment is provided through the federal Preventive Health and Human Service Block Grant, with contracts administered by the Wisconsin Department of Health and Family Services through the Division of Public Health.



Source: WI Department of Health and Family Services, Division of Public Health 2001

School-Based Fluoride Mouthrinse Programs

Fluoride mouthrinse programs use a concentrated solution of sodium fluoride (920 ppm fluoride) in a supervised weekly program for children over age six in school systems located in non-fluoridated communities. The Wisconsin Department of Health and Family Services promotes school-based fluoride mouthrinsing and provides technical assistance to local health departments and schools taking part in the program.

Local health departments partner with school systems to provide mouthrinse programs. DHFS supported fluoride mouthrinse programs benefit over 10,000 children in 66 Wisconsin elementary schools located in non-fluoridated areas. DHFS administers the contracts with local health departments through the Division of Public Health.

Dietary Fluoride Supplement Programs

Dietary fluoride supplement programs have been used since the 1940's according to the US Centers for Disease Control and Prevention. The supplement is used in the form of lozenges, liquids or tablets for children six months through 16 years living in households with inadequate levels of fluoridated water. The supplement is prescribed in doses of 1.0, 0.5, or .25 mg fluoride depending on the laboratory-tested level of fluoride present in the water system. The annual cost of dietary fluoride supplement programs is approximately \$37 per person receiving the supplement (U.S. Centers for Disease Control and Prevention, 2001).

According to the Department of Health and Family Services, local public health departments in Wisconsin served 2,245 Wisconsin children in 2001 with the dietary fluoride supplement program.

Dental Sealant Programs

Dental sealants are a resin coating that covers the chewing surface of the back teeth making them more resistant to decay. They protect the tooth by sealing the pits and fissures of the teeth because these are the most susceptible areas of the tooth to decay due to the ability of bacteria to harbor in these areas.

School-based and school-linked dental sealant programs target high-risk populations with low access to dental services with a 60 percent decrease in tooth decay on the chewing surfaces of posterior teeth after sealant application. Programs are often targeted for schools with high free and reduced lunch populations, indicating low-income.

According to the federal Healthy People 2010 baseline data for eight-year olds, 23 percent of the children have sealants compared to a HP 2010 goal of 50 percent. The Healthy People 2010 baseline data for children age 14 is 15 percent with a HP 2010 goal of 50 percent with sealants on first and second molars.

According to the 2001 *Make Your Smile Count* survey, 47 percent of third grade children (most of whom are eight years old) in Wisconsin have had sealants.

Healthy Smiles for Wisconsin—Seal-a-Smile Sealant Program

The Healthy Smiles for Wisconsin initiative seeks to improve the oral health of children through school and community partnerships. The Seal-a-Smile initiative is part of the Healthy Smiles for Wisconsin effort.

In 2001-2002 there were 104 events in 18 community or school-based programs as a result of the Wisconsin Seal-A-Smile program. A total of 3919 children were screened with 2,918 determined as needing sealants. A total of 10,701 sealants were placed for those children determined as needing sealants (Children's Health Alliance, 2002).

Overall Cumulative Screening Data: 2001-2002 Seal-a-Smile Grantee

Project	Total # of Events	Male	Female	Total # of Children Screened	Total # of Children Sealed	Total # of Teeth Sealed
Quad County Seal a Smile	8	96	92	188	174	769
Boys/Girls Club Greater Milwaukee	2	47	63	110	93	321
Eau Claire Dental Hygienist's	5	92	92	184	150	542
Jackson County	2	33	33	66	37	104
LaCrosse County	5	50	59	109	92	297
Madre Angela Dental Clinic	9	152	170	322	275	977
Marathon County	10	198	214	412	263	1051
Milwaukee Area Technical College	2	76	94	170	103	322
Neenah-Menasha Seal a Smile	1	18	14	32	31	109
Northwoods Seal a Smile	1	21	17	38	34	134
Pepin County*	1	7	7	14	12	30
Pierce-St. Croix Seal a Smile	4	62	61	140	125	312
Portage\Wood County Seal a Smile	23	442	385	827	551	1933
Price County Seal a Smile	8	105	109	214	151	658
Rhineland Seal a Smile	1	44	50	94	69	243
Seal Brown County	6	142	136	278	245	1040
Seal Dane*	8	269	297	566	397	1478
West Allis Health Department	8	84	71	155	116	381
Grand Total	104	1938	1964	3919	2918	10701

*Indicates program is funded by local agency not General Purpose Revenue

GuardCare Sealant Program

GuardCare is part of a national initiative that utilizes medical, dental and supporting units of the National Guard to provide community health service projects in underserved areas of the state. Since 1995, this activity has served as part of the clinical training requirement for these units. In Wisconsin, GuardCare is a collaborative effort between the Wisconsin Army National Guard (13th Medical and Dental Detachment), the Department of Health and Family Services, local public health departments, health professional education institutions, and community organizations and agencies. The dental component of GuardCare consists of providing free dental sealants to children in underserved areas of the state. Since the beginning of the program in 1995, GuardCare program has served 3,074 children and sealed 15,070 teeth.

The Wisconsin “GuardCare” program addresses at least five federal Healthy People 2010 oral health objectives. The following five objectives relate to increasing sealant use among 8 and 14 year olds; reducing dental caries experience in children; increasing utilization of the oral health system; increased utilization of dental services for low-income children and adolescents; and increasing the number of community health center and local health departments with an oral health component.

Early Childhood Caries Prevention Program

Early Childhood Caries/Cavities (ECC) is a rampant form of tooth decay found in infants and toddlers. ECC is a transmissible, bacterial infection with unique characteristics and risk factors. The condition can be debilitating for children by affecting their ability to obtain nutrition, affecting their energy level and their ability to concentrate in the learning process.

A dental visit at age one with anticipatory guidance at regular intervals is recommended to avert the disease and prevent possible devastating effects for the young child (Edelstein, 1998). Six out of ten children in the US have one or more decayed or filled primary (baby) teeth by the age of five (US Department of Health and Human Services, 2000). The federal Healthy People 2010 baseline data indicates that 18 percent of children age 2-4 have early childhood caries while the Healthy People 2010 goal for early childhood caries in this age group is 11 percent (US Centers for Disease Control and Prevention, Healthy People 2010).

The Wisconsin Department of Health and Family Services, oral health consultants provide early childhood caries training to regional and local health department personnel. Training includes the use of basic oral health screening, anticipatory guidance, age appropriate fluoride treatments (*fluoride varnish) and referrals to a dentist as needed, for children age 9 months to 3 years.

*Fluoride varnish acts to slow the effects of poor nutritional habits and bacterial action on the teeth by protecting them from demineralization of the enamel (US Centers for Disease Control and Prevention, 2001).

Spit Tobacco Program

Smokeless tobacco use has been associated with leukoplakia, oral cancers, tooth and gum disease, and heart disease. Like smoking, smokeless tobacco use often begins in early adolescence. Approximately 80 percent of adult smokers started smoking before the age of 18. (National Center for Chronic Disease Prevention and Health Promotion)

According to the 2001 Wisconsin Department of Public Instruction Youth Risk Behavior Survey, conducted through the Department of Public Instruction, 20 percent of students reported having ever used chewing tobacco, snuff, or dip. Nine percent of all students reported using these products in the past thirty days. Males accounted for 14 percent of the smokeless tobacco users while females accounted for four percent of the users.

The Wisconsin Tobacco Control Board provides funding to the Department of Health and Family Services for a spit tobacco prevention program. The Department contracts with the Wisconsin Dental Association (WDA). Other partners in the Stamp Out Spit Tobacco Program are the Department of Public Instruction and the Milwaukee Brewers. The program provides comic books with a positive health message through a math, science and geography curriculum to 5th grade students. Curriculum for educators emphasizes abstinence and cessation in an effort to decrease the use of smokeless tobacco.

The program served 80,000 fifth grade students in 150 schools throughout the state in the 2001-2002 school year. In addition, a "Brewers Day in the Park" features the program and distributes 10,000 comic books.

The program encourages children to resist the social pressures associated with spit tobacco use and is entering its third year of operation with ongoing program evaluation.

Oral Health Professional Workforce

According to the American Dental Association (ADA), *Future of Dentistry-Today's Vision: Tomorrow's Reality* (2001) report, nationwide the dentist workforce will continue to be made up in the same way that it is today with the vast majority of dentists in solo private practices. According to the Wisconsin Department of Regulation and Licensing, in 2002 there are 3,432 licensed dentists and 3,901 licensed dental hygienists living in Wisconsin. The ADA report suggests that increases in the efficiency of use of dental hygienists and dental assistants could make up for a portion of the reduction in dentist to population ratio. The following sections on dental workforce present information on a survey regarding dental workforce and another survey regarding dental hygiene workforce. Also included is information about programs that seek to increase the oral health workforce in Wisconsin.

Dentist Workforce

According to a survey of dentists conducted by Wisconsin Department of Health and Family Services, Division of Health Care Financing, Bureau of Health Information, sixty-six percent (2,842) of the dentists who responded to the survey were practicing in Wisconsin with 81 percent in general practice and 57 percent in solo practice. Fifty-seven percent have been in practice for more than 20 years. The survey also found that dentists in Wisconsin work a median of 35 hours per week. According to the Wisconsin Primary Care Association, an estimated 56 new dentists are expected to enter practice in Wisconsin each year between 2000 and 2010 with higher numbers of dentists planning to leave practice during the same period. The data that follows is from the Wisconsin Dentist Workforce Report released in 2002 by Wisconsin Primary Health Care Association.

Dental Specialty Distribution by Wisconsin Department of Health and Family Service Region and State

	Wisconsin (%)	Northeastern (%)	Northern (%)	Southeastern (%)	Southern (%)	Western (%)
General Practice	81	82	83	80	82	82
Pediatric dentistry	3	3	2	3	2	2
Oral surgery	4	4	5	4	4	7
Endodontics	2	2	1	3	2	2
Orthodontics	5	6	6	5	7	5
Periodontics	2	2	1	2	1	2
Prosthodontics	2	1	1	3	1	0.3
Oral pathology, dental public health, and other	1	1	1	1	1	0.3
Total	100	100	100	100	100	100
Total all dentists	2,842	601	254	1,157	424	337
Total primary care dentists	2,343	507	216	960	353	283

*Thirty-one dentists did not provide location information and thirty-eight did not provide specialty information.

Source: Wisconsin Primary Health Care Association, Wisconsin Dentist Workforce Report, 2002
Survey conducted by the DHFS, Bureau of Health Information, 2001

Wisconsin has a ratio of 53 dentists per 100,000 population or 1,887 persons per dentist. According to the American Dental Association, nation-wide in 1999 there were 59 dentists per 100,000 population.

- The distribution of primary care dentists in Wisconsin is 44 dentists per 100,000 population or 2,289 persons per dentist.
- The regional data varies from 2,104 persons per dentist in the Southeastern public health region to 2,771 in the Southern region.

Number of Dentist per 100,000 population by Wisconsin Department of Health and Family Services Region

	Wisconsin	Northeastern	Northern	Southeastern	Southern	Western
Total population	5,363,675	1,160,186	482,311	2,006,929	972,710	741,539
All dentists	2,842	606	255	1,171	433	341
Dentists per 100,000 population	53	52	53	58	45	46
Population per dentist	1,887	1,914	1,891	1,714	2,246	2,175
Primary care dentists	2,343	504	216	954	351	283
Dentist per 100,000 population	44	43	45	48	36	38
Population per dentist	2,289	2,302	2,233	2,104	2,771	2,620

Source: Wisconsin Primary Health Care Association, Wisconsin Dentist Workforce Report, 2001

Dental Hygienist Workforce

There were 3,364 licensed dental hygienists living in Wisconsin according to the 2000 *Dental Hygiene Workforce* survey from the Dental Hygiene Association of Wisconsin. The survey key findings include the following:

- . The distribution of dental hygienists throughout Wisconsin varies, ranging from a high of 12.6 per 10,000 population in Pepin County to a low of 0 per 10,000 population in Crawford County
- . 98.9 percent of hygienists are white
- . 99.2 percent are women
- . The average rate is 6.8 per 10,000 population in state designated metropolitan counties
- . The average rate of distribution is 4.7 per 10,000 population in state designated non-metropolitan counties
- . The average number of hours worked per week is 27.8
- . 89.4 percent do not work with a dental hygiene assistant
- . 95.2 percent report being satisfied with their job.
- . 1 out of 4 do not feel there are enough dental hygiene job opportunities available to them
- . Most hygienists are choosing to work part-time
- . Dental hygienists do not choose the profession as a primary career track but are choosing the career later in life at an average age of 26
- . One-half of hygienists report being offered health benefits as a condition of employment

Dental Health Professional Shortage Areas (DHPSA)

A dental Health Professional Shortage Area (HPSA) is a federal designation that reflects a shortage of dental professionals in one of the following areas: a geographic area (rural or urban), a specific population (mainly low-income in Wisconsin), or a public or non-profit private facility. The U.S. Department of Health and Human Services, Bureau of Health Professions approves the dental HPSAs based on the following criteria:

1. The service area involved is rational for the delivery of dental services.
2. The specified population-to-dental professional is exceeded within the service area. (The majority of the Wisconsin dental HPSAs are low-income population HPSAs, which has a low-income population to full-time-equivalent dentist ratio of greater than 4,000:1.)
3. Dental resources in contiguous areas are over-utilized, excessively distant, or otherwise inaccessible.

National Health Service Corps Programs

The federal *National Health Service Corps* offers a scholarship program for third and fourth year dental students committed to providing dental care in a practice site located in federally designated Health Professional Shortage Areas (HPSAs) with the greatest need. The program offers payment for tuition, fees, books, supplies, and a monthly stipend. The obligation period is one year for each year of support received, with a two-year minimum commitment. The Wisconsin Primary Health Care Association provides general NHSC information to students and clinics, and helps clinics apply for scholar placement.

The federal *National Health Service Corps* offers loan repayment assistance to dentists and dental hygienists that agree to work full-time and for a minimum of two years, at a practice site located in a high need rural or urban HPSA. For the first two years of service the NHSC Loan Repayment Program will pay up to \$25,000 for each year of service and payments of up to an additional 39 percent of the loan repayment amount to cover tax liabilities.

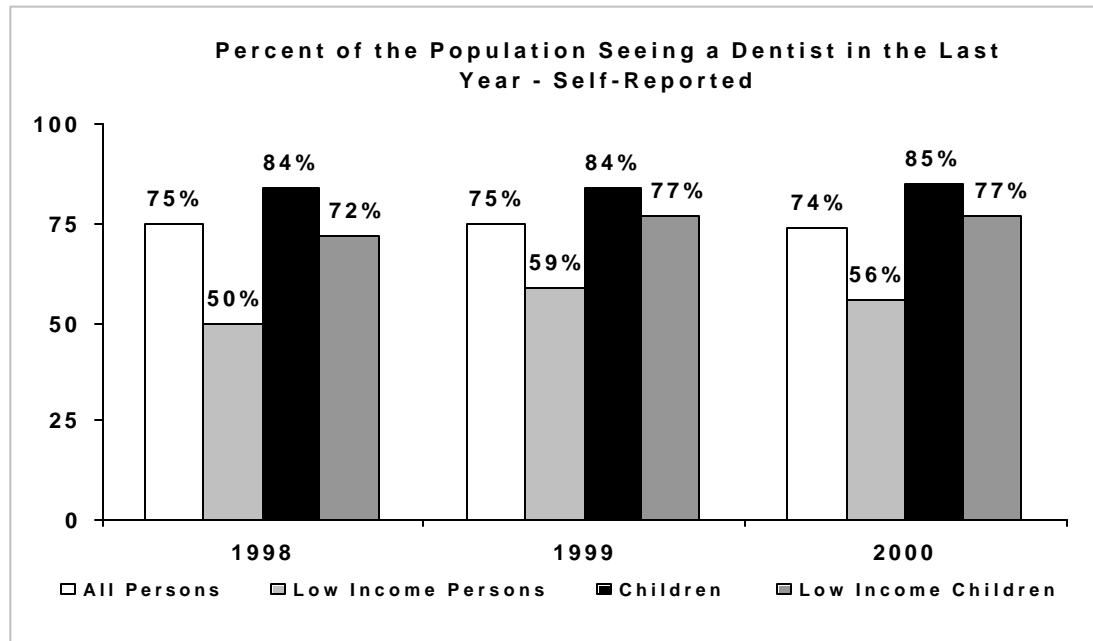
Health Professionals Loan Assistance Program (HPLAP)

The Wisconsin Health Professional Loan Assistance Program (HPLAP) was established in 1990 by the Wisconsin Department of Commerce in cooperation with the Wisconsin Office of Rural Health. The program was developed to assist Wisconsin rural and central city communities to recruit and retain primary care and dental health professionals. Health care professionals in Wisconsin, including physicians, nurse practitioners, physician assistants, certified nurse midwives, dentists and dental hygienists can receive educational loan assistance by practicing in one of Wisconsin's federally designated Health Professional Shortage Areas (HPSAs). Dentists are eligible to receive \$50,000 in loan assistance and dental hygienists are eligible to receive \$25,000 in loan assistance. Awards are dispersed to the recipients over a three-year period.

Oral Health Delivery Systems

Wisconsin residents obtain their oral health care through dentists in private practice and in a variety of other clinical situations.

According to the Department of Health and Family Services *Wisconsin Family Health Survey 2000*, 74 percent of Wisconsin residents saw a dentist in the last year. The survey also found 56 percent of all low-income persons and 77 percent of low-income children ages 3-17 self-reported as seeing a dentist.



Source: WI Family Health Survey 2000

Private Practice

According to the federal Centers for Medicare and Medicaid, private practice dentistry accounted for 96 percent of the estimated \$53.8 billion spent on dentistry in 1998 (US Department of Health and Human Services, 2000).

Nationally, utilization for diagnostic services increased from one oral examination per year in 1980 to 1.5 per year in 1995. Utilization of dental cleanings followed a similar trend. At the same time utilization for dental restorations has declined from 1.5 to 2 per year in 1980 to one or fewer restorations per year per user in 1995 (Eklund, 1997).

In Wisconsin, 81 percent of the 2,842 (94 percent response rate) dentists responding to a DHFS survey reported they practice in general dentistry with 57 percent of those in solo practices. Of the 39 percent of dentists working in group practices, 17 percent were employees.

Rural Dental Clinics

Through a federal Office of Rural Health Outreach Grant, comprehensive dental services are available to residents of north central Wisconsin in Langlade, Lincoln, Oneida and Forest counties. A mobile clinic serves uninsured patients through a sliding fee scale as well as Medicaid and BadgerCare program participants. The clinics are scheduled in community settings, such as schools, and all portable equipment is transported from one site to another on a regular schedule. Appointments are scheduled through the respective local public health departments.

State funding supports two rural dental clinics and the delivery of comprehensive dental services for persons with developmental disabilities, the elderly and low-income populations:

- CESA 11 (Cooperative Education Service Area) manages the Menomonie project and serves the following counties: Barron, Chippewa, Dunn, Pepin, Pierce, Polk and St. Croix. There is a fixed dental site in Turtle Lake and scheduled services in area Head Start programs, public schools, nursing homes, health departments, a Technical College, and outpatient services at a state center for the disabled.
- The Marshfield Family Health Center (a federally qualified health center) manages the Ladysmith project and will serve the following counties: Rusk, Price, Taylor, Sawyer and Chippewa. There is a fixed site in Ladysmith and dental clinic space and providers are being significantly expanded. This project is exploring opportunities to strengthen coordination of patient care between their medical and dental clinics.

Federally Qualified Community Clinics

Federally Qualified Health Centers (FQHCs) serve underserved populations and are eligible for special consideration with regard to reimbursement for services through the Medicaid program. Other sources of federal funding are also reserved for these centers. To qualify, Federally Qualified Health Centers must meet certain criteria according to the National Health Service Corps:

- Serve a federally designated health professional shortage area, medically underserved area, or medically underserved population;
- Provide services to all patients regardless of insurance status;
- Use a sliding fee scale for uninsured patients based on income status;
- Operate as a nonprofit corporation governed by a board of directors, of which Health Center users constitute a majority.

Eight of 15 Wisconsin FQHC's, have on-site comprehensive dental programs that provided 40,000 dental services in 2001 according to the Wisconsin Primary Health Care Association. More information about clinics providing dental services in Wisconsin is available by telephoning the following individual clinics:

Bridge Community Health Clinic, Wausau, 1-715-848-4884
Family Health Medical and Dental/ La Clinica, Wautoma, 1-920-787-5514
Kenosha Community Health Center, Inc., Kenosha, 1-262-656-0044
Milwaukee Health Services, Milwaukee, 1-414-372-9158
Northern Health Centers, Inc., Lakewood, 1-715-276-6321
Scenic Bluffs Community Health Center, Cashton and La Crosse,
1-608-654-5100
Sixteenth Street Community Health Center, Milwaukee, 1-414-672-1353
Family Health Center of Marshfield, 1-715-387-9137

Great Lakes Inter-Tribal Clinics

Eight of the eleven tribal clinics in Wisconsin have comprehensive dental services available. The Indian Health Service provides advice and technical assistance to the member tribes.

More information about services is available by telephoning following:

Potawatomi Health and Wellness Center, Crandon, 1-715-478-4309
Ho Chunk Nation Health Department, Black River Falls, 1-715-284-7830
Lac Courte Oreilles Community Health Center, Hayward, 1-800-323-2650
Peter Christensen Health Center, Lac du Flambeau, 1-715-588-3371
Oneida Community Health Center, Oneida, 1-920-869-2711
St. Croix Health Services, Hertel, 1-715-349-2198
Stockbridge-Munsee Health Center, Bowler, 1-715-793-4144
Menominee Tribal Clinic, Keshena, 1-715-799-3361

Other Safety Net Clinics

According to *Dental Care Access Programs for the Uninsured and Underinsured in Wisconsin (2001)* from the Children's Health Alliance of Wisconsin, there were 20 counties with safety-net dental clinics in the state. These clinics serve uninsured and low-income persons. They vary considerably in structure and services provided. Safety net clinics have a variety of physical and organizational arrangements from non-profit, tax-exempt, incorporated structures with paid staff to sites that are donated by community or health care entities and use entirely volunteer staff to provide services.

Some of the clinics provide comprehensive services to the clients while others provide referral services and vouchers for emergency care at private practices with no coverage for preventive services. Some are free clinics that serve only those with no private insurance or Medicaid/BadgerCare, while others use a sliding fee schedule. There are programs that provide sealants through school-based mobile/portable treatment units. See *Appendix G Resources* for additional information.

Marquette University School of Dentistry

Marquette University School of Dentistry provides comprehensive dental services to patients of all income levels. According to the Marquette University Clinical Services report, July 1, 2000 to June 30, 2001, the school served 15,312 unduplicated patients during 47,509 patient visits. The Department of Health and Family Services administers a contract through which the School of Dentistry provides clinical dental services to under served populations.

The school and students serve patients at:

Marquette University School of Dentistry Clinic
1801 W. Wisconsin Avenue, Milwaukee

Isaac Coggs Community Health Center
2770 North 5th Street, Milwaukee

Johnston Community Health Center
1230 W. Grant Street, Milwaukee

Oneida Community Health Center
Oneida Tribal Reservation, Oneida

In addition, senior students take part in the Wisconsin National Guard Sealant Project providing sealants to children in two designated low-income communities for one week each summer.

Of the 15,312 patients that were served through the Marquette University School of Dentistry in the 2000-2001 reporting year, 65 percent paid cash for their services, 18 percent were covered by Medicaid/BadgerCare, 10 percent were receiving benefits under Medicare and seven percent of the patients had private dental insurance.

Wisconsin Technical College System Dental Hygiene Programs

The Wisconsin Technical College System has Associate Degree Dental Hygiene programs at eleven of the sixteen technical colleges. The schools are a convenient source for community oral health prevention programs. Clinic fees at the schools are designed to be affordable for those who might not otherwise be able to access preventive oral health.

The clinic requirements for the program allow students to experience working with a variety of patients. Within the program is a community dental health course that requires students to fulfill oral health community projects.

The following is a list of Wisconsin Technical College Dental Hygiene Programs with patient services:

Blackhawk Technical College, 1-608-743-4412
Chippewa Valley Technical College, 1-715-235-1573
Fox Valley Technical College, 1-800-735-3882 x2452
Lakeshore Technical College, 1-920-693-1175
Madison Area Technical College, 1-608-258-2400
Milwaukee Area Technical College, 1-414-279-6573
Moraine Park Technical College, 1-920-924-6364
Northcentral Technical College, 1-715-675-3331 x4960
Northeast Wisconsin Technical College, 1-920-498-5450
Waukesha Technical College, 1-262-691-5224
Western Wisconsin Technical College, 1-608-789-6101

Head Start Programs

Since 1965 the Head Start program has been available to children from low-income families as the result of the federal Economic Opportunity Act of 1964.

One of the mandates of the Head Start program requires a dental examination for each child. In the 2000-2001 school year, 15,390 Wisconsin children were enrolled in the Head Start program (*Wisconsin Head Start Information Report, 2001*). Of the enrolled children, 72.88 percent (11,216) received a dental examination. Of the children receiving an examination, 28.6 percent (3,205) were diagnosed as needing treatment. Of the children needing treatment, 72.8 percent (2,332) had or were receiving treatment at the time of reporting. Of the children who had examinations, 81.7 percent (9,168) received preventive care.

The Wisconsin Department of Health and Family Services is planning the first statewide oral health screening survey of children enrolled in Head Start during 2002-2003.

Financing Oral Health for Children

Americans spent \$60 billion in 2000 for dental expenditures according to the American Dental Association. (American Dental Association, 2002)

Self-Pay

Nationally, self-pay populations pay approximately 47 percent of total dental expenditures (\$25.8 billion) according to the American Dental Association. (American Dental Association, 2002)

Dental Insurance

Private dental insurance covered 40 percent of the population. In addition, private dental insurance accounts for 47 percent of total dental expenditures—the same percentage as the amount of self-pay for dental expenditures (American Dental Association, 2002).

Medicaid/BadgerCare Fee-For-Service

Wisconsin Medicaid is a state/federal assistance program providing health care coverage for low-income adults and children. It includes dental care for Medicaid recipients of all ages for qualifying procedures. Children and adults are eligible to receive basic dental services through Wisconsin Medicaid certified dentists. Covered services include diagnostic, preventive and restorative services. Other dental care, including dentures, periodontics and orthodontics may be covered if demonstrated through prior authorization as the most medically appropriate course of treatment. Emergency dental treatment for Medicaid clients may be provided and billed to Medicaid by a licensed dentist.

BadgerCare covers working-poor families up to 185 percent of the federal poverty and provides health and dental coverage for children under age 19 as well as their parents. Though eligibility requirements differ between the Medicaid and the BadgerCare programs, covered procedures are the same.

According to the *Wisconsin Health Insurance Coverage 2000* report, Medicaid and BadgerCare covers 4 percent of the total population and 9 percent of the 0-17 age group.

According to the *Wisconsin Medicaid Measures of Dental Services Fiscal Year 2001* report, claims for dental services were received for 22.5 percent of all fee-for-service Medicaid/BadgerCare recipients and 24.7 percent of fee-for-service Medicaid/BadgerCare recipients who were children.

WI Medicaid/BadgerCare HMO/Managed Care Program

The Wisconsin Medicaid program contracts with Health Maintenance Organizations (HMOs) to provide and pay for comprehensive services with an emphasis on promoting preventive health services for enrolled participants.

The Wisconsin Medicaid Dental HMO program serves four counties in Southeast Wisconsin—Milwaukee, Waukesha, Kenosha, and Racine. A total of 21.1% of Wisconsin Medicaid HMO enrollees in Milwaukee County saw a dentist for any reason in 2000 (Wisconsin Department of Health and Family Services, Wisconsin Medicaid HMO Comparison Report: 1998/1999).

HealthCheck Programs (EPSDT)

The federal Early and Periodic Screening, Diagnosis, and Treatment (EPSDT) program, called HealthCheck in Wisconsin, is a Medicaid program that covers comprehensive and preventive child health for children under the age of 21. It includes periodic medical, vision, dental, and hearing screening services.

According to the Wisconsin Division of Health Care Financing, 65 percent of all eligible children in Wisconsin received initial or periodic screenings for State Fiscal Year 2001.

In Wisconsin, there were a total of 357,339 children eligible for Health Check in Fiscal Year 2001, the most recent available reporting data. In that reporting year, 19.5 percent of the children received any dental service with 8.6 percent of the children receiving treatment.

Wisconsin Medicaid also covers dental sealants provided by certified HealthCheck nursing agencies to all Medicaid recipients under age 21, regardless of whether the recipient is covered by Medicaid fee-for-service or enrolled in a Medicaid HMO. This includes recipients enrolled in a Medicaid HMO that provides dental coverage.

Donated Dental Services

The Foundation of Dentistry for the Handicapped is a national charitable organization with headquarters in Denver, Colorado. The Foundation started the Donated Dental Services program to help medically compromised, aged people who are indigent, and people with disabilities by linking them with volunteer dentists. The Wisconsin Foundation of Dentistry for the Handicapped is an affiliate of the National Foundation.

Wisconsin has provided state funds annually for the provision of donated dental services to disabled, medically compromised, and aged residents. The funding is used for a program coordinator located at the Wisconsin Dental Association (WDA). WDA member dentists provide donated dental services. The Department of Health and Family Services through the Division of Public Health administers the contract.

Appendix A

Demographics of Wisconsin

General Population

Wisconsin is a predominantly rural state with a total population of 5,363,675 according to the US 2000 census data. There are 72 counties in Wisconsin with Milwaukee County in the Southeast section of the state the most populated at 3,953 people per square mile and Iron County in the Northern section the least populated with eight people per square mile (Wisconsin Department of Health and Family Services, 2002).

The average family income is \$44,032. According to the Wisconsin Division of Public Health, "2000 Health Data Profile" for the State of Wisconsin, the estimated poverty rate is 9.2 percent for all ages and 14.3 percent for children ages 0-17.

Race/Ethnicity

- Non-Hispanic whites in Wisconsin make up 87% of the total population with other groups as follows:
 - African American, 5.7%
 - Hispanic origin of any race, 3.6%
 - American Indian/Alaska Native, 0.9%
 - Asian, 1.7%
 - Native Hawaiian/Other Pacific Islander, 0.3%
 - Other Races, 1.6%

Source: US Census Bureau, 2000

Children

- Of 1,532,093 Wisconsin children aged 0 to 19 years old:
 - 4% live below 50% of poverty
 - 14% live below 100% of poverty compared with 19.9 % nationally (US Census Bureau)
 - 29% live below 200% of poverty
- 278,152 Wisconsin children, aged 0-19 are enrolled in Medicaid
- 22% of Wisconsin children live in single parent households
- 112,684 Wisconsin children are enrolled in the Women-Infants-Children Program (WIC)
- 34 percent of all elementary school children are eligible for the federal free and/or reduced lunch rate (DPI, 2002)

Source: WI DHFS-DPH, MCH Title V Block Grant Application 2003, SD5.6-13

Appendix B

Dental Health Professional Shortage Areas (HPSAs)

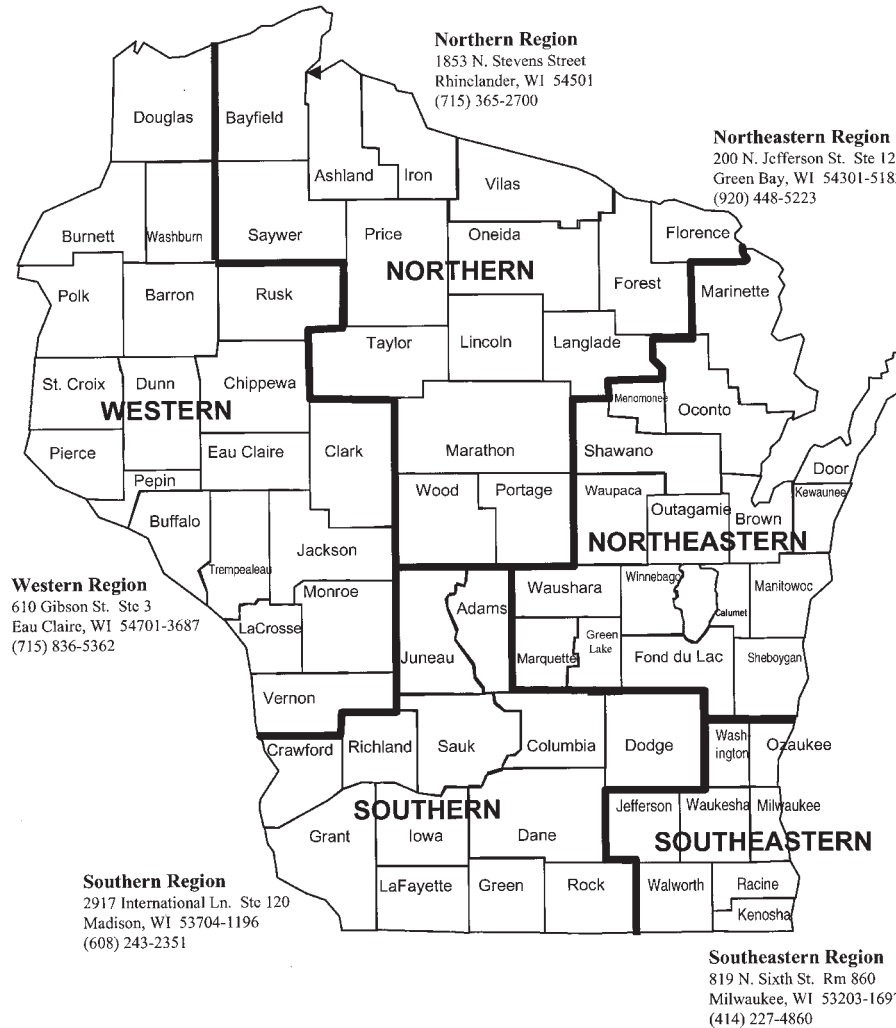


Wisconsin Division of Public Health

10/8/02

Appendix C

Department of Health and Family Services Regions



Appendix D

Make Your Smile Count Survey Results by Wisconsin Department of Health and Family Services Region

Make Your Smile Count Survey Results Compared to federal Healthy People 2010 Goals Department of Public Health and Family Services Southern Region			
Variable	Southern Region Results	<i>Federal Healthy People 2010 Goal for Age 6-8</i>	WI Results
# Children Screened	503		
Untreated Decay	19.1%	29%	30.8%
Caries History	57.1%	52%	60.1%
Sealants	49.1%	50%	47.0%
Treatment Urgency			
No Obvious Problem	80.5%	N/A	68.9%
Early Dental Care Needed	19.3%		27.1%
Urgent Dental Care Needed	0.2%		4.0%

**Make Your Smile Count Survey Results
with Comparison to Available National Statistics**

**Department of Health and Family Services
Southeastern Region**

Variable	South-eastern Region Results	<i>Federal Healthy People 2010 Goal for Age 6-8</i>	WI Results
# Children Screened	1,261		
Untreated Decay	36.0%	29%	30.8%
Caries History	60.7 %	52%	60.1%
Sealants	43.0%	50%	47.0%
Treatment Urgency			
No Obvious Problem	63.6%		68.9%
Early Dental Care Needed	27.8%		27.1%
Urgent Dental Care Needed	8.6%	N/A	4.0%

**Make Your Smile Count Survey Results
Compared to federal Healthy People 2010 Goals**

**Department of Health and Family Services
Northeastern Region**

Variable	North-eastern Region Results	<i>Federal Healthy People 2010 Goal for Age 6-8</i>	WI Results
# Children Screened	727		
Untreated Decay	32.2%	29%	30.8%
Caries History	63.0%	52%	60.1%
Sealants	40.0%	50%	47.0%
Treatment Urgency			
No Obvious Problem	67.7%	N/A	68.9%
Early Dental Care Needed	31.2%		27.1%
Urgent Dental Care Needed	1.1%		4.0%

**Make Your Smile Count Survey Results
Compared to federal Healthy People 2010 Goals**

**Department of Health and Family Services
Western Region**

Variable	Western Region Results	<i>Federal Healthy People 2010 Goal for Age 6-8</i>	WI Results
# Children Screened	454		
Untreated Decay	15.2%	29%	30.8%
Caries History	51.8%	52%	60.1%
Sealants	57.9%	50%	47.0%
Treatment Urgency			
No Obvious Problem	84.8%	N/A	68.9%
Early Dental Care Needed	15.0%		27.1%
Urgent Dental Care Needed	0.2%		4.0%

<p align="center">Make Your Smile Count Survey Results Compared to federal Healthy People 2010 Goals</p> <p align="center">Department of Health and Family Services Northern Region</p>			
Variable	Northern Region Results	<i>Federal Healthy People 2010 Goal for Age 6-8</i>	WI Results
# Children Screened	362		
Untreated Decay	46.1%	29%	30.8%
Caries History	67.1%	52%	60.1%
Sealants	58.6%	50%	47.0%
Treatment Urgency			
No Obvious Problem	53.9%	N/A	68.9%
Early Dental Care Needed	42.3%		27.1%
Urgent Dental Care Needed	3.9%		4.0%

Appendix E

Regional Fact Sheets

*Please note that fluoride mouthrinse programs and sealant programs receiving funds from the Wisconsin Division of Public Health are targeted to children with high risk for dental cavities.

Department of Health and Family Services Southern Region For additional information about programs call the agency at the contact number listed.	Fluoride Mouthrinse Program	Dietary Fluoride Supplement Program	Sealant Program	Education	Early Childhood Caries Program	Other
Adams County, 608/ 339-4253		X	X			
City of Beloit, 608/ 364-6630			X	X		
Columbia County, 608/ 742-9227		X	X			
Crawford County, 608/ 326-0229						
Dane County, 608/ 242-6520		X	X	X		
Dodge County, 920/ 386-3670						
Grant County, 608/ 723-6416	X					
Green County, 608/ 328-9390						
Iowa County, 608/ 935-2810		X				X
Juneau County, 608/ 847-9373			X			
Lafayette County, 608/ 776-4895	X			X		
Madison City, 608/ 266-4821			X	X	X	X
Richland County, 608/ 647-8821 x291		X				
Rock County, 608/ 757-5442						
Sauk County, 608/ 355-3290		X	X	X		

Department of Health and Family Services Southeastern Region For additional information about programs call the agency at the contact number listed.	Fluoride Mouthrinse Program	Dietary Fluoride Supplement Program	Sealant Program	Education	Early Childhood Caries Program	Other
Caledonia/Mount Pleasant City, 262/ 835-6429						
Cudahy City, 414/ 769-2239						
Franklin City, 414/ 425-9101						
Greendale City, 414/ 423-2110						
Greenfield City, 414/ 329-5275						
Hales Corners City, 414/ 529-6155				X		
Jefferson County, 920/ 674-7275		X				X
Kenosha County, 262/ 605-6700						
Milwaukee City, 414/ 286-3521						
North Shore, 414/ 371-2980						
Oak Creek City, 414/ 768-6525						
Ozaukee County, 262/ 284-8170						
Racine City, 262/ 636-9201						
St. Francis City, 414/ 481-2300 x33						
Shorewood/Whitefish Bay City, 414/ 847-2710						
South Milwaukee City, 414/ 764-5060						
Walworth County, 262/ 741-3140	X					
Washington County, 262/ 335-4462						
Watertown City, 920/ 262-8090						
Waukesha, 262/ 896-8430						
Wauwatosa City, 414/ 479-8936						
West Allis City, 414/ 302-8600			X	X		X
Western Racine County, 262/ 763-4923						

Department of Health and Family Services Northeastern Region For additional information about programs call the agency at the contact number listed.	Fluoride Mouthrinse Program	Dietary Fluoride Supplement Program	Sealant Program	Education	Early Childhood Caries Program	Other
Appleton City, 920/ 832-6429						
Brown County, 920/ 448-6400			X	X		
Calumet County, 920/ 849-1432	X					
DePere City, 920/ 339-4054						
Door County, 920/ 746-2234 x233						X
Fond du Lac County, 920/ 929-3085	X		X			
Green Lake County, 920/ 294-4070 x4109						X
Kewaunee County, 920/ 388-7160						X
Manitowoc County, 920/ 683-4155						
Marinette County, 715/ 732-7670	X		X			
Marquette County, 608/ 297-9116		X				X
Menasha City, 920/ 967-5119			X			X
Menominee County, 715/ 799-3861						
Neenah City, 920/ 751-4650			X			X
Oconto County, 920/ 834-7000						
Oshkosh City, 920/ 236-5031						
Outagamie County, 920/ 832-5100	X			X		
Shawano County, 715/ 526-4808						
Sheboygan County, 920/ 459-4382						
Waupaca County, 715/ 258-6300						
Waushara County, 920/ 787-4661	X	X				
Winnebago County, 920/ 232-3000						

Department of Health and Family Services Western Region For additional information about programs call the agency at the contact number listed.	Fluoride Mouthrinse Program	Dietary Fluoride Supplement Program	Sealant Program	Education	Early Childhood Caries Program	Other
Barron County, 715/ 537-6502	X					
Buffalo County, 608/ 685-4412	X	X				
Burnett County, 715/ 349-7600						
Chippewa County, 715/ 726-7900		X				
Clark County, 715/743-5105						
Douglas County, 715/ 395-1404						
Dunn County, 715/ 232-2388		X				
Eau Claire County, 715/ 839-4718	X					
Jackson County, 715/ 284-4301	X					
La Crosse County, 608/ 785-9872			X			
Monroe County, 608/ 269-8666	X		X			
Pepin County, 715/ 672-5961	X	X	X			
Pierce County, 715/ 273-6755	X		X			
Polk County, 715/ 485-8500	X	X				
Rusk County, 715/ 532-2299	X					
St. Croix County, 715/ 246-8263			X			
Trempealeau County, 715/ 538-2311 x220		X	X			
Vernon County, 608/ 637-5251	X					
Washburn County, 715/ 635-4400						

Department of Health and Family Services Northern Region For additional information about programs call the agency at the contact number listed.	Fluoride Mouthrinse Program	Dietary Fluoride Supplement Program	Sealant Program	Education	Early Childhood Caries Program	Other
Ashland County, 715/ 682-7028	X	X		X		
Bayfield County, 715/ 373-6109	X	X				
Florence County, 715/ 528-4837	X	X				
Forest County, 715/ 478-3371	X	X				
Iron County, 715/ 561-2191	X	X				
Langlade County, 715/ 627-6250	X	X				
Lincoln County, 715/ 536-0307						
Marathon County, 715/ 261-1900	X	X	X			
Oneida County, 715/ 369-6111		X				
Portage County, 715/ 345-5350	X	X	X			
Price County, 715/ 339-3054	X	X	X	X	X	X
Sawyer County, 715/ 634-4874		X				X
Taylor County, 715/ 748-1410	X	X				
Vilas County, 715/ 479-3656						
Wood County, 715/ 421-8911			X			

Appendix F

Wisconsin Community Water Fluoridation Census 2001

**WISCONSIN DEPARTMENT OF HEALTH
AND FAMILY SERVICES**

**DIVISION OF PUBLIC HEALTH
Oral Health Program
P. O. Box 2659
Madison, WI 53701-2659**

WISCONSIN PUBLIC WATER SUPPLY FLUORIDATION CENSUS – 2001

The Wisconsin Public Water Supply Fluoridation Census provides information on the fluoride status of public water systems in Wisconsin. This census is conducted by the Division of Public Health, Department of Health and Family Services in collaboration with the Department of Natural Resources. Information is obtained from the Center for Disease Control and Prevention's Water Fluoridation Reporting System and the Department of Natural Resource's community water system pumpage reports. The following facts summarize the benefits of fluoridation:

- Fluoridation is the least expensive and most effective way to reduce tooth decay.
- Fluoridation benefits children and adults when they drink fluoridated water and consume foods and beverages prepared with it.
- Fluoridation is safe.
- Fluoridation provides benefits that continue for a lifetime.
- Fluoridation reduces the need for dental treatment and its costs.

Systems listed under "Adjusted for Optimal Fluoride Content" adjust the amount of fluoride in the water for optimal oral health benefits. The optimal level for fluoridated systems in Wisconsin is 1.1 part per million of fluoride. Community water fluoridation is the most efficient way to prevent tooth decay. Systems listed under "Natural Fluoride Content of 0.7 PPM and Above" have at least 0.7 parts per million of natural fluoride in the water. Children drinking water from these systems should not take dietary fluoride supplements.

Systems listed under "Deficient in Fluoride Content and Not Adjusting" do not have adequate fluoride in the water for the prevention of tooth decay. Children drinking water from these systems should take dietary fluoride supplements. More information regarding dietary fluoride supplements can be found on the Dental Health Fact Sheet on Dietary Fluoride Supplements (PPH 4290) available from the Division of Public Health.

Approximately 90% of the population of Wisconsin on public water supplies receive the benefits of appropriate levels of fluoride. Since many people receive their water from individual wells, approximately 63% of the total population in Wisconsin receive the benefits of appropriate levels of fluoride. There are 283 systems in Wisconsin that adjust the level of fluoride (fluoridated) for optimal benefits.

**WISCONSIN PUBLIC WATER SUPPLIES
ADJUSTED FOR OPTIMAL FLUORIDE CONTENT – 2001**

Abbottsford	Cudahy	Hudson
Adams	Darlington	Janesville
Albany	Deerfield	Jefferson
Alma	DeForest	Johnson Creek
Amery	Delavan	Juneau
Antigo	Dickeyville	Kenosha
Appleton	Dodgeville	Kewaskum
Arcadia	Dousman	Kohler
Arlington	Durand	La Crosse
Ashland	Eagle River	Ladysmith
Athens	East Troy	Lake Geneva
Avoca	Eau Claire	Lake Mills
Balsam Lake	Edgar	Lancaster
Baraboo	Edgerton	Laona
Barneveld	Eleva	La Valle
Beaver Dam	Elk Mound	Lodi
Belleville	Elkhorn	Lone Rock
Belmont	Ellsworth	Loyal
Beloit	Elroy	Luck
Benton	Evansville	Madison
Berlin	Fall Creek	Manitowoc
Biron	Fall River	Maple Bluff
Black Earth	Fennimore	Marathon City
Black River Falls	Fitchburg	Marinette
Blair	Florence	Marion
Blanchardville	Fond du Lac	Marshall
Blue Mounds	Footville	Marshfield
Bonduel	Fort Atkinson	Mauston
Boscobel	Fox Lake	Mayville
Brodhead	Fox Point	Mazomanie
Brooklyn	Frederick	McFarland
Brown Deer	Friendship	Menasha
Butler	Galesville	Menomonee Falls
Caledonia	Genoa City	Menomonie
Cambridge	Germantown	Merrill
Cascade	Gillett	Middleton
Cassville	Gilman	Milton
Cedarburg	Glendale	Milwaukee
Central WI Center/Mendota	Glenwood City	Mineral Point
Mental Health Institute	Grafton	Minong
Centuria	Grantsburg	Mondovi
Chilton	Green Bay	Monona
Clinton	Greendale	Monroe
Colby	Greenfield	Monticello
Coloma	Greenwood	Mount Horeb
Columbus	Hartford	Mukwonago
Cornell	Hartland	Muscoda
Cottage Grove	Hayward	Neenah
Cross Plains	Hazel Green	Neillsville
Cuba City	Horicon	Nekoosa
	Hortonville	New Glarus

New Holstein
New London
New Richmond
Niagara
Northern WI Center for Dev.
Disabled
North Fond du Lac
North Freedom
North Hudson
North Park
North Shore
Oak Creek
Oconomowoc
Oconto Falls
Omro
Onalaska
Oregon
Osceola
Oshkosh
Palmyra
Pardeeville
Park Falls
Peshtigo
Pewaukee (Village)
Phillips
Plain
Platteville
Plover
Plymouth
Port Edwards
Port Washington
Portage
Potosi
Poynette
Prairie du Sac
Prescott
Pulaski
Racine
Reedsburg
Rhineland
Rice Lake
Richland Center
Rio
Ripon
River Falls
Rock Springs
Rome
Rothschild
St. Croix Falls
St. Francis
St. Nazianz
Sauk City
Saukville
Schofield
Sharon

Sheboygan
Sheboygan Falls
Shell Lake
Shorewood
Shorewood Hills
Shullsburg
Siren
Soldiers Grove
Somers
South Milwaukee
South Wayne
Sparta
Spencer
Spooner
Spring Green
Spring Valley
Stanley
Stevens Point
Stoughton
Strum
Sturgeon Bay
Sturtevant
Sun Prairie
Superior
Tennyson
Tigerton
Tomahawk
Two Rivers
Valders
Verona
Vesper
Washburn
Waterloo
Watertown
Waukesha
Waunakee
Waupaca
Waupun
Wausau
Wautoma
Wauwatosa
West Allis
West Baraboo
West Bend
West Milwaukee
Westport
West Salem
Weyauwega
Whitefish Bay
Whitehall
Whitewater
Whiting
Williams Bay
Wilton
Wind Point

Wisconsin Dells
Wisconsin Rapids
Wonewoc
Woodville

Sanitary Districts

Beaver Brook
Greenville
Harmony Grove
Kieler
Kronenwetter
Land O' Lakes
Menasha (Town of)
Morrisonville
Pell Lake
Pleasant Prairie
Rib Mountain
Shelby Arbor Hills
Shelby Skyline
Shelby Wedgewood
Waunona
Weston
Windsor

**WISCONSIN PUBLIC WATER SUPPLIES
NATURAL FLUORIDE CONTENT OF 0.7 PPM AND ABOVE – 2001**

Algoma
Allouez
Ashwaubenon
Bayside North Shore East
Belgium
Brookfield (parts)
Campbellsport
Cedar Grove
Clintonville
Combined Locks
DePere
Eagle Lake
Forest Junction
Franklin (parts)
Greenleaf
Gresham
Howard
Kansasville-Eagle
Kaukauna
Kewaunee
Kimberly
Lemont Utility
Little Chute
Luxemburg
Mishicot
New Berlin
North Pedersen
Oconto
Oliver
Paddock Lake

Pleasant Prairie
River Glen
Southern WI Center
Taycheedah Correctional Institution
Thiensville (part)
Union Grove
Winnebago State Hospital
Wrightstown

Sanitary Districts

Bellevue
Bristol
Caddy Vista
Crest View
Darboy
Grand Chute
Holland
Menasha
North Cape
Scott
Shawano Lake

**Wisconsin Public Water Supplies
Deficient in Fluoride Content and Not Adjusting – 2001**

Adell	Crivitz	Ithaca
Alma Center	Cumberland	Jackson
Almena	Curtiss	Junction City
Altoona	Dallas	Kellnersville
Amherst	Dalton	Kendall
Arena	Dane	Kiel
Argyle	Darien	Knapp
Augusta	Denmark	Knolls
Bagley	Dorchester	Lake Delton
Baldwin	Dresser	LaFarge
Bangor	Drummond	Lena
Barron	Eagle	Lincoln Hills School
Bay City	Eastman	Linden
Bayfield	Elkhart Lake	Livingston
Bear Creek	Elmwood	Loganville
Birchwood	Embarrass	Lomira
Birnamwood	Ethan Allen School	Lowell
Black Creek	Ettrick	Lyndon Station
Bloomer	Exeland	Maiden Rock
Bloomington	Fairchild	Manawa
Blue River	Fairwater	Maribel
Bluffview	Fontana	Markesan
Bowler	Fountain City	Mattoon
Boyceville	Fox Lake Correctional Inst.	Medford
Boyd	Franklin	Mellen
Brandon	Fredonia	Melrose
Brillion	Friesland	Merrillan
Brokaw	Gays Mills	Merrimac
Brookfield (Town of)	Genoa	Milladore
Brownsville	Glenbeulah	Milltown
Browntown	Glen Flora	Minocqua
Bruce	Granton	Montello
Burlington	Gratiot	Montfort
Butternut	Green Lake	Montreal
Cadott	Hammond	Mosinee
Cambria	Hancock	Mount Calvary
Cameron	Hatley	Mount Hope
Camp Douglas	Haugen	Mount Sterling
Cashton	Hawkins	Muskego
Cawley Creek	Highland	Necedah
Cazenovia	Hilbert	Nelson
Chaseburg	Hillsboro	New Auburn
Chetek	Hixton	New Lisbon
Chippewa Falls	Hollandale	Nichols
Clayton	Holmen	Norwalk
Clear Lake	Hurley	Oakdale
Cleveland	Hustler	Oakfield
Clyman	Hustisford	Ontario
Cobb	Independence	Oostburg
Cochrane	Iola	Orfordville

Patch Grove
 Pence
 Pepin
 Pigeon Falls
 Pittsville
 Plainfield
 Port Wing
 Pound
 Prairie du Chien
 Prairie Village
 Prentice
 Princeton
 Radisson
 Randolph
 Random Lake
 Readstown
 Redgranite
 Reedsville
 Reeseville
 Rewey
 Rib Lake
 Ridgeway
 Roberts
 Rockland
 St. Cloud
 St. Coletta of Wisconsin
 Seneca
 Seymour
 Shawano
 Sheboygan (Town of)
 Sheldon
 Sherwood
 Shiocton
 Sister Bay
 Slinger
 Somerset
 Star Prairie
 Stockbridge
 Stoddard
 Stone Lake
 Stratford
 Suring
 Sussex
 Taylor
 Theresa
 Thorp
 Tomah
 Tony
 Trempealeau
 Turtle Lake
 Union Center
 Viola
 Viroqua
 Waldo

Walworth
 Warrens
 Waupun Correctional Inst.
 Waterford
 Wausaukee
 Wauzeka
 Webster
 Westby
 Weyerhaeuser
 Wheeler
 White Lake
 Whitelaw
 Wilson
 Winneconne
 Winter
 Withee
 Wittenberg
 Wyocena
 Yuba

Sanitary Districts

Allenton
 Amani (Osceola)
 Blooming Grove
 (Madison)
 Bridgeport
 Brockway (Black River
 Falls)
 Brookfield #2
 Brookfield #3
 Brookfield #4
 Dodge
 Downsview
 East Troy
 Edmund (Town of
 Linden)
 Elcho
 Fifield
 Glidden
 Goodman
 Hallie
 Heritage Hills
 Jamestown (Maryville)
 Lakeland
 Lawrence
 Ledgeview
 LeRoy (Knowles)
 Lincoln (Town of)
 Manitou Falls
 Maplewood
 Mary Hill Park (Fond du
 Lac)
 Maryville
 Mercer
 Mindoro
 Pewaukee (Town of)
 Phelps
 Seneca
 Sextonville
 Stitzer
 Suamico
 Three Lakes
 Troy
 Waverly
 Wabeno
 Wedgewood Terrace
 Westboro
 Wiota

Appendix G

Resources

Children's Health Alliance of Wisconsin

1-414-390-2191

www.healthysmilesforwisconsin.org

- Dental Care Access Programs for the Uninsured and Underinsured in Wisconsin
- Seal-a-Smile Program

Marquette University School of Dentistry

1-414-288-6790

www.marquette.edu

- Marquette University School of Dentistry services

National Health Service Corps

1-800-221-9393

<http://nhsc.bhpr.hrsa.gov/>

- National Health Service Corps

Rural Dental Health Project, Program Director

1-715-362-7322

- Mobile clinic services

Wisconsin Dental Association

1-800-364-7646

www.wda.org

- Private dental practice in Wisconsin
- Donated Dental Services program

Wisconsin Department of Health and Family Services, Oral Health Program

1-608-266-3201

1-608-266-5152

www.dhfs.state.wi.us

- Community Water Fluoridation
- Dietary Fluoride Supplement programs
- School-Based Fluoride Mouthrinse programs
- Early Childhood Caries program
- Fluoride Varnishes
- Public School Survey
- Spit Tobacco Prevention program
- Wisconsin GuardCare Dental Sealant program

Wisconsin Department of Health and Family Resources, Bureau of Chronic Disease Prevention and Health Promotion

1-608-264-7735

Primary Care Section at (608) 264-6528

www.dhfs.state.wi.us

- Dental Health Professional Shortage Areas in Wisconsin

Wisconsin Department of Health and Family Services, Division of Health Care Financing

1-608-267-0938

www.dhfs.state.wi.us

- Wisconsin Health Check Program (EPSDT)

Wisconsin Head Start Association

1-608-265-9422

www.whsaonline.org

- Head Start in Wisconsin

Wisconsin Office of Rural Health

1-800-385-0005

www.worh.org

- Health Professions Loan Assistance Program

Wisconsin Primary Health Care Association

1-608-277-7477

www.wphca.org

- Federally Qualified Health Centers in Wisconsin

Wisconsin Technical College System

1-608-266-1207

www.wtcs.edu

- Wisconsin Technical College Dental Hygiene Programs

References

- American Dental Association. (2002). Future of Dentistry-Today's Vision: Tomorrow's Reality.
- Centers for Medicare and Medicaid Services (CMS). Medicaid and EPSDT. <http://cms.hhs.gov/medicaid/epsdt/ep1999.pdf>, Retrieved 9/14/02.
- Children's Health Alliance of Wisconsin. (2002). Overall Cumulative Screening Data: 2001-2002 Healthy Smiles Grantees.
- Children's Health Alliance of Wisconsin. (2001). Dental Care Access Programs for the Uninsured and Underinsured in Wisconsin, Updated August, 1999.
- Dental Hygiene Association of Wisconsin. (2000). Dental Hygiene Workforce Survey.
- Edelstein, Burton L. (1998) Evidence-Based Dental Care for Children and the Age 1 Dental Visit. *Pediatric Annals* 27:9. 569-78.
- Eklund, S.A., Pittman, J.L., Smith, R.C. (1997). Trends in Dental Care Among Insured Americans: 1980-1995. *Journal of the American Dental Association*. 128, 171-178.
- Marquette University School of Dentistry. (2001). Clinical Dental Services July 1, 2000-June 30, 2001.
- National Center for Chronic Disease Prevention and Health Promotion. Tobacco Information and Prevention Sources (TIPS). Available at <http://www.cdc.gov/tobacco/issue.htm>. Retrieved 10/6/02
- National Health Service Corps. Department of Health and Human Services, Health Resource and Services Administration, Bureau of Health Professions. <http://nhsc.bhpr.hrsa.gov/>, Retrieved 9/16/02.
- U.S. Census Bureau. State and County QuickFacts. <http://quickfacts.census.gov/qfd/states/55000.html>, Retrieved 9/22/02.
- United States Centers for Disease Control and Prevention. CDC Resource Library Fact Sheet, <http://www.cdc.gov/OralHealth/factsheets/fl-caries.htm>, Retrieved 8/26/02.
- United States Centers for Disease Control and Prevention. CDC Resource Library Press Releases, <http://www.cdc.gov/OralHealth/pressreleases/cwfsealants.htm>, Retrieved 9/29/02.
- United States Centers for Disease Control and Prevention. Healthy People 2010. Chapter 21. Oral Health. <http://www.health.gov/healthypeople/Document/HTML/Volume2/21Oral.htm> Retrieved 9/22/02.

- United States Centers for Disease Control and Prevention. (2001). Recommendations for Using Fluoride to Prevent and Control Dental Caries in the United States. Morbidity and Mortality Weekly Report. 50. RR-14.
- U.S. Department of Health and Human Services, Bureau of Primary Health Care, Health Professional Shortage Areas, http://bphc.hrsa.gov/dsd/hpsa_fr3.htm, Retrieved 9/29/02.
- U.S. Department of Health and Human Services (USDHHS), National Institutes of Health, National Institute of Dental and Craniofacial Research. (2000). Oral Health In America: A Report of the Surgeon General. Rockville, MD: U.S. Department of Health and Human Services.
- Wisconsin Department of Health and Family Services, Division of Health Care Financing, Bureau of Health Information. (2000). Wisconsin Health Insurance Coverage.
- Wisconsin Department of Health and Family Services, Division of Health Care Financing, Bureau of Health Information. (1999). Wisconsin Health Survey. .
- Wisconsin Department of Health and Family Services, Division of Public Health. (2002). Maternal and Child Health Title V Block Grant Application 2003.
- Wisconsin Department of Family Services, Division of Public Health, Oral Health Program, http://www.dhfs.state.wi.us/health/Oral_Health/Donated.htm, Retrieved, 9/22/02.
- Wisconsin Department of Health and Family Services, Division of Public Health, Oral Health Program. (2002). Make Your Smile Count Survey.
- Wisconsin Department of Health and Family Services, Division of Public Health. (2001). Oral Health Scorecard.
- Wisconsin Department of Health and Family Services, Division of Public Health. (2000). Profile for the State of Wisconsin. http://www.dhfs.state.wi.us/localdata/pdf/00pub_hlth/wisconsin.pdf, Retrieved 9/22/02.
- Wisconsin Department of Public Instruction. (1998). Back to School For Healthy Smiles Survey.
- Wisconsin Department of Public Instruction. (2002). Wisconsin Free/Reduced Eligibility Data For School Fiscal Year 2002.
- Wisconsin Department of Public Instruction. (2001). Wisconsin Youth Risk Behavior Survey.

Wisconsin Head Start. (2002). Program Information Report for 2000-2001 Program Year, Health Services Report-State Level Summary.

Wisconsin Office of Rural Health. (2002). Health Professionals Loan Assistance Program. http://www.worh.org/new_orh_docs/prog_loan.asp., Retrieved 9/16/02.

Wisconsin Primary Health Care Association (WPHCA). (2002). Wisconsin Dentist Workforce Report. (2001).

Wisconsin Primary Health Care Association (WPHCA), Press Release, August 15, 2002.

Wisconsin Technical College System. <http://www.witechcolleges.com>., Retrieved 9/8/02.

**For additional copies of this report,
please contact:**

**Oral Health Program
Office of Public Health Improvement
Division of Public Health
Wisconsin Department of Health and Family Services
PO Box 2659
Madison, WI 53701-2659
PPH 0002 (11/02)
http://www.dhfs.state.wi.us/health/oral_health**